REMARKS

Claims 1-7 are pending. The Examiner has rejected claims 1-7.

Claims 1-7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Moriyama (U.S. Patent No. 4,680,647) in view of Lin et al. (U.S. Patent No. 5,659,399).

Moriyama addresses the insertion of start codes and stop codes into a recorded medium to allow a machine that reads the medium, such as a VCR, to identify a particular segment of the data recorded on the medium. Lin addresses using sub-pixel modulation to enhance an image being printed.

The office action states that Lin discloses a subpixel modulation process when code alters the placement of the spots to produce a sub-visual pattern identifying a print engine. The text referred to in the action is column 3, lines 65-67, column 4, lines 1-5 and column 9, lines 54-60. These will be addressed in turn.

The text at column 3, lines 65-67 through column 4, lines 1-5 states, "identifying, using a template matching operation applied to the stored digital image signals, a multi-bit value associated with a pixel position to be selectively controlled; for the pixel position identified to be selectively controlled, producing a pixel code representative of an exposure duration and position shift to be applied to the pixel position to be selective controlled, and directing the print engine to shift the exposure position in response to the pixel code."

The template matching operation is described in column 7, lines 41-45 and column 8, lines 42-50. The template matching operation takes a pattern that has been previously identified as requiring enhancement of the image as a template and compares the 'pixel context' of a current pixel to that template. If the template matches, the sub-pixel modulation process is used to 'correct' or otherwise enhance the printed image for that pixel context, by indicating *to the print engine* where and how the sub-pixel modulation is to be done. It is

print engine independent. There is no use of the sub-pixel modulation to identify the print engine that produces the printed image.

The text at column 9, lines 54-60 states, "An output signal produced by LUT 114 contains both pixel position and pixel width information to be interpreted by the pulse-width position-modulation (PWPM) chip 116 to enable sub pixel modulation at the ROS. As an alternative, it will be appreciated that it may be possible to utilize the template matching block 110 to generate the PWPM code for direct output to the PWPM chip 116." The text is basically saying that if the pixel context for the current pixel matches one of the previously identified templates as being an area that requires sub-pixel modulation, and the LUT then takes the code from the template matching block 110 to determine what code should be used. Again, there is no mention of the sub-pixel modulation being in any way connected to an identifier to identify the print engine producing the printed image.

Further, the techniques of Lin are directed to *enhancing* the printed image by sub-pixel modulation, while the techniques of the instant invention are directed to *degrading* the image quality only slightly to include information about the print engine.

There is no mention in the combination of references using two different magnitudes of timing as in claim 3.

It is therefore submitted that claims 1 and 3 are patentably distinguishable over the prior art and allowance of these claims is requested.

With regard to claim 2, Moriyama discloses that sub-pixel modulation is used several times throughout an image, but not necessarily the same code. The code use depends upon the results of the template matching operation, which may be different, or may not occur more than once in a document. It is therefore submitted that claim 2 is patentably distinguishable over the prior art and allowance of this claim is requested.

In claims 4-5 Moriyama may discuss full and no modulation processes, but not with

regard to identifying a print engine that produces a printed image. It is therefore submitted that claims 4 and 5 are patentably distinguishable over the prior art and allowance of these claims is requested.

With regard to claims 6 and 7, the combination of references does not teach the use of those start and stop codes to delineate the start and stop of a code that identifies a print engine that produced the printed image. It is therefore submitted that claims 6 and 7 are patentably distinguishable over the prior art and allowance of these claims is requested.

Allowance of all claims is requested. No new matter has been added by this amendment. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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